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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/528,253	03/17/2000	Kaori Fujimura	10746/17	4420

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EXAMINER

AKHAVANNIK, HUSSEIN

ART UNIT PAPER NUMBER

2621

DATE MAILED: 09/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Advisory Action</b>	Application No. 09/528,253	Applicant(s) FUJIMURA ET AL.	
	Examiner Hussein Akhavannik <b>H.A.</b>	Art Unit 2621	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 03 August 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY [check either a) or b)]**

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☒ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
  - (b) ☐ they raise the issue of new matter (see Note below);
  - (c) ☒ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
  - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet.

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☐ The a) ☐ affidavit, b) ☐ exhibit, or c) ☐ request for reconsideration has been considered but does NOT place the application in condition for allowance because: \_\_\_\_\_.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☒ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: 3 and 33.

Claim(s) objected to: None.

Claim(s) rejected: 1,2,4,6-10,12-22,24-26,28,29,31,32,34-38 and 40-68.

Claim(s) withdrawn from consideration: None.

8. ☐ The drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☒ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). 20040803.
10. ☐ Other: \_\_\_\_\_

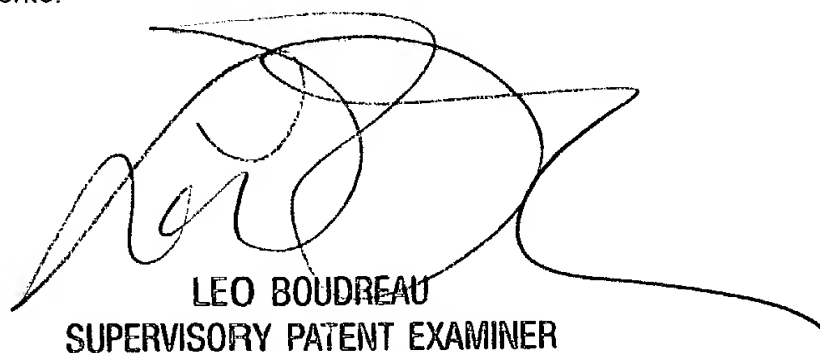
Continuation of 2. NOTE: The Applicant alleges that Liu et al do not indicate that projection images may be used to correct a slice position. The Examiner agrees that Liu et al do not explicitly teach such a feature. However, Liu et al do explain substituting slice images with projection images because radiologists preferably view projection images in clinical diagnosis in column 1, lines 14-21. As recited in paragraph 6 of the previous office action, it would have been obvious to one of ordinary skill in the art at the time the invention was made to generate projection images and use those projection image to generate the shift amount because:

a. Liu et al explicitly explain that radiologists prefer to view projection images in rather than slice images in column 1, lines 14-21.  
b. Projection images and slice images are both 2D images and therefore, the operating principle of measuring a shift amount and correcting the slice positions as explained by Xu et al would not change by using projection images.

c. Projection images inherently contain more information than slice images because they are determined as a function of multiple slice images ("projection of a three-dimensional (3D) volume" in column 1, lines 22-23 of Liu et al). Therefore, by using projection images, the system of Xu et al would be robust to local shifts occurring only in a slice image, thereby increasing the accuracy of the correction of slice images.

Furthermore, by substituting the slice images by projection images in the system of Xu et al, a first projection image and a second projection image would be used to find a comparison image whose slice position corresponds to a slice position of a diagnostic image and therefore, the added limitation to the independent claims would be explained by the system of Xu et al and Lui et al.

The Applicant alleges that if the slice images in figures 2A and 2B are changed to projection images, the projection images are merely useless line segments, which cannot be used for correcting the slice position. The Examiner respectfully disagrees. If creating a projection from a series of slice images perpendicular to the z-axis creates a merely useless line segments, then the projection images of the instant application would also be useless line segments. If this is not the case, the Applicant is invited to explain why the projection images created in the instant application are not useless line segments.



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